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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,547	07/16/2003	Peter Schoegg	66376-327-7	5941

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EXAMINER

CHUNG, EUN HEE

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/619,547

Applicant(s)

SCHOEGGL, PETER

Examiner

Eun H. Chung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6 and 8-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-12 are presented for examination.

Drawings

2. The drawings are objected to because they fail to show details as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be labeled and shown in the drawing. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 2-4, 6, and 8-12 are objected to because of the following informalities: The word “A” at the beginning of each claim would be better as “The”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. While claiming a method for simulating the behavior of vehicle, there are no steps of the method claims are provided. The essential elements to reasonably form a test stand claims are not provided.

6. Regarding claims 1, 5, and 7, the phrase "immediately" renders the claim indefinite because it is unclear what the limitation(s) refers.

7. Claims 1 and 5 recite the phrase “the driving behavior of vehicle” in line 1, “the engine of the vehicle” in line 2, “the driving stage” in line 4-5, and “the reaction of the vehicle” in line 5. There is insufficient antecedent basis for this limitation in the claim.

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8. Claims 3 and 11 recite the phrase "the real vehicle" in line 2 and line 3. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 11 recites the phrase "the driving behavior of vehicle" in line 1, "the engine of the vehicle" in line 2, "the driving stage of the vehicle" in line 46, and "the reaction of the vehicle" in line 7. There is insufficient antecedent basis for this limitation in the claim.

10. Regarding claims 5 and 7 the phrase "such as" and "or the like" render the claim indefinite because it is unclear what the limitation(s) refers.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claim 1-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. They fail to provide a useful concrete and a tangible result that enables any usefulness of the simulation to be realized. Calculating values of the engine variable with non-measurable values is not a tangible result. It is a computation within a computer.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1, 2, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by List et al. (US Patent No. 6,079,258).

Regarding Claims 1 and 5

List et al. disclose a method for simulating the driving behavior of vehicles on a test stand in which the engine of the vehicle is coupled on the test stand to an electronically controllable braking apparatus and a first simulation model calculates simulation values of variables which are representative of the driving state of the vehicle in that the reaction of the vehicle to the behavior of the engine and the values of the variables as determined immediately prior thereto are calculated, with at least one evaluation variable w being calculated on the basis of the values measured on the test stand for measurable variables and engine torque M and the values calculated therefrom with the simulation model for non-measurable variables, wherein in a further simulation model higher-frequency changes are calculated from variables which are measurable per se and are considered in the calculation of the evaluation variable by superimposing with the actual measured values (Fig. 1, 2, and 8-10, Col. 6 lines 64+, Col. 7 lines 1-47, Col. 8 lines 1-30, Col. 8 lines 47-64, Col. 41+, Col. 10 lines 32-61).

Regarding Claims 2

List et al. disclose the simulation values which are calculated in the first simulation model on the basis of the values for measurable variables which are actually measured on the test are used to trigger the test stand, whereas the simulation values calculated in the further

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simulation model are used exclusively for the calculation of the evaluation variable, namely in such a way that the values for measurable variables as measured on the test stand are superimposed with the calculated higher-frequency changes (Fig. 1, 2, and 8-10, Col. 6 lines 64+, Col. 7 lines 1-47, Col. 8 lines 1-30, Col. 8 lines 47-64, Col. 41+, Col. 10 lines 32-61).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. Claims 3-4, 7, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over List et al. (US Patent No. 6,079,258), in view of Sanada et al. (US Patent No. 5,986,545).

List et al. teach most all of the instant invention as applied to claims 1, 2, and 5 above.

Regarding Claims 3-4, 7 and 10-11

List et al. disclose (Claim 7) a test stand for simulating the driving behavior of vehicles, with a braking apparatus to which the engine of the vehicle is coupled, with measuring devices for measurable variables and engine torque M , in which a first simulation model is stored which calculates simulation values of variables which are representative of the driving state of the vehicle, such that the reaction of the vehicle to the behavior of the engine and the values of the variables determined immediately prior thereto are calculated, with an evaluation unit being provided which on the basis of the values measured on the test stand and the values for non-measurable variables such as vehicle speed v or the like as calculated therefrom with the simulation model calculates at least one evaluation variable w , wherein a superimposition unit is provided in which a further simulation model is stored which calculates higher-frequency changes in variables n , M which are measurable per se and superimposes them on the actual measured values in calculating the evaluation variable w (Fig. 1, 2, and 8-10, Col. 6 lines 64+, Col. 7 lines 1-47, Col. 8 lines 1-30, Col. 8 lines 47-64, Col. 41+, Col. 10 lines 32-61);

(Claims 3 and 11) the values for measurable variables as measured on the test stand and with the values for the non-measurable variables as calculated in the first simulation model (Fig. 1, 2, and 8-10, Col. 6 lines 64+, Col. 7 lines 1-47, Col. 8 lines 1-30, Col. 8 lines 47-64, Col. 41+, Col. 10 lines 32-61);

(Claims 4 and 12) the evaluation variable w is used for the adaptation (Fig. 1, 2, and 8-10, Col. 6 lines 64+, Col. 7 lines 1-47, Col. 8 lines 1-30, Col. 8 lines 47-64, Col. 41+, Col. 10 lines 32-61); and

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(Claim 10) the superimposition unit is provided (Fig. 1, 2, and 8-10, Col. 6 lines 64+, Col. 7 lines 1-47, Col. 8 lines 1-30, Col. 8 lines 47-64, Col. 41+, Col. 10 lines 32-61).

List et al. fail to teach (Claims 3-4, 7, and 10-12) an electronic test stand control device for controlling the braking apparatus.

Sanada et al. teach the engine is controlled by an electronic control device which corresponds to that of the real vehicle (Fig. 1, Col. 4 lines 1+, Col. 5 lines 13-62).

List et al. and Sanada et al. are analogous art because they are both related to simulation of the behavior of vehicles.

Therefore, it would have been obvious to one of ordinary skill in the art of at the time the invention was made to have include the teaching of Sanada et al., in the method of analyzing the driving behavior of motor vehicles of List et al. because control device for controlling the engine is a well known process in a method for analyzing the driving behavior of motor vehicles.

Sanada et al. teach the advantages of vehicle drivability evaluation system that has a control unit which simulates the operating condition of the engine and controls engine performance (Fig. 1, Col. 4 lines 1+).

Regarding Claims 8

List et al. disclose the superimposition unit is adaptive and is used directly for triggering the electronic test stand device and/or the braking apparatus (Fig. 1, 2, and 8-10, Col. 6 lines 64+, Col. 7 lines 1-47, Col. 8 lines 1-30, Col. 8 lines 47-64, Col. 41+, Col. 10 lines 32-61).

Regarding Claims 9

List et al. disclose the superimposition unit is provided in the evaluation unit (Fig. 1, 2, and 8-10, Col. 6 lines 64+, Col. 7 lines 1-47, Col. 8 lines 1-30, Col. 8 lines 47-64, Col. 41+, Col. 10 lines 32-61).

18. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over List et al. (US Patent No. 6,079,258), in view of Schoggl et al. (US Patent No. 6,598,467).

List et al. teach most all of the instant invention as applied to claims 1, 2, and 5 above.

List et al. fail to teach a low-pass filtering.

Schoggl et al. teach a low-pass filtering (Fig. 1, Col. 4 lines 8-46).

List et al. and Schoggl et al. are analogous art because they are both related to simulation of the behavior of vehicles.

Therefore, it would have been obvious to one of ordinary skill in the art of at the time the invention was made to have include the teaching of Schoggl et al., in the method of analyzing the driving behavior of motor vehicles of List et al. because a low-pass filtering is a well known process in a method for analyzing the driving behavior of motor vehicles. Schoggl et al. teach the advantages of vehicle drivability analyzing system that system that the signal from the calculation unit is converted in a low-pass filter, which concerns a digital filter of order with a cut-off frequency and the high frequency shares is filtered out by low-pass filtering (Fig. 1, Col. 4 lines 1+).

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schwendemann et al. disclose(s) a method for testing wheels of vehicles (US Patent No. 6,813,938).

Lutz disclose(s) motor a vehicle brake test method (US Patent No. 3,962,914).

freitag disclose(s) a method for simulating the mass of motor vehicles placed on stationary test stands (US Patent No. 6,516,287).

Henry et al. disclose(s) emulation system for a motor vehicle drivetrain (US Patent No. 4,680,959).

Hagelin disclose(s) a method concerning the behavior of a vehicle (US Pub. No. 2003/0014230).

Hagelin disclose(s) a method concerning the behavior of a vehicle (US Pub. No. 2003/0014615).

Beyer et al. disclose(s) a method for indicating the driving state of a vehicle to the driver (US Pub. No. 2003/0191573).

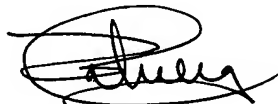
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eun H. Chung whose telephone number is 571-272-2164. The examiner can normally be reached on 8:30am-5:00pm Monday to Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EHC

 7/24/06
ZOILA CABRERA
PRIMARY EXAMINER 2125